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(54) **CALCULATING THE MOTION VECTOR FIELD FOR A RECONSTRUCTED CT SCAN IMAGE**

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(58) **Field of Classification Search**

None

See application file for complete search history.

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(57) **ABSTRACT**

A method for calculating a motion vector field (MVF) in a reconstructed CT scan image, comprises: determining a region of interest (ROI) based on a vessel centreline in a first reconstructed CT scan image, wherein a motion vector field (MVF) for the ROI is to be calculated; determining at least two time control points for calculating the MVF; calculating a motion level factor of the ROI; calculating motion amounts of the MVF corresponding to each of the time control points; determining the direction of the MVF of the ROI; and calculating the MVF of the ROI according to the motion level factor, the motion amounts of the MVF corresponding to each of the time control points and the direction of the MVF.

18 Claims, 5 Drawing Sheets